Religion 196
Religion and Science
Spring 2007

Time :   W 3:30-6:00
Location :   Old Mill Annex A207
CRN: 10932 (section B)

Instructor: Carl Seaquist
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Office Hours: W 12:30-2:00 and by appointment

Many people think that there is a necessary conflict between science and religion: Science emphasizes empiricism and logic, whereas religion emphasizes faith. There is some foundation for this view, as some religious traditions in the modern period do explicitly set themselves in opposition to particular scientific theories. But the problems are more deep-seated than is suggested by such a simple story. Science, in a modern sense of the word, has been practiced since ancient times; but the modern notion of science only developed in the last four hundred years or so. Before then, people engaged in speculation that we would view as religious or scientific, but they drew the boundaries between these differently than we would, or else they didn't draw them at all.

This course is structured historically. The middle half will focus on Newton. This will be preceded by a briefer look at the ancient world (primarily Ptolemy) and followed by a quick run from the 18th century to the present.

Textbooks

Six textbooks are required for this class:
> Curd, Patricia, and Richard McKirahan, eds. and trans., *A Presocratics Reader*, Hackett
>> Publishing Company, 1996.
> Densmore, Dana and William Donahue, eds. and trans., *Selections from Newton's*
>> *Principia*, Green Cat Books, 2004.
> Janiak, Andrew, ed., *Newton: Philosophical Writings*, Cambridge University Press,
>> 2004.
> Plato (Jowett, trans.), *Gorgias and Timaeus*, Dover Thrift Editions, 2003.
> Polkinghorne, John, *Belief in God in an Age of Science*, Yale University Press, 1998.
> Ptolemy, *Tetrabiblos*, F.E. Robbins, ed. and trans., Harvard University Press, 1940/1980.

Other required readings will be made available through WebCT.

Course Requirements and Grading

Your grade for this course will be based on a group assignment (20%), individual paper (20%), midterm (30%), and final exam (30%).

Group assignment: On January 31, I will divide the class into an even number of groups. Each group will be paired with another group.   Each pair of groups will engage in an ongoing debate over the course of the semester, on the topic of the number of books written by Empedocles. One group in each pair will defend the claim that Empedocles wrote one book, the other group that he wrote two books.

On February 7, the "one-book" groups will turn in a one-page position paper through WebCT, due by noon. During class those groups will be asked to read their papers aloud. The next week the "two-book" groups will write a reply, and this sequence will iterate until April 18, each group writing and presenting a new argument for their position on alternate weeks. Your explicit audience for these papers will be the group with which you are paired, but you may reference any ideas or evidence presented by any groups during the semester. You will be graded on the persuasiveness of your arguments; you are encouraged to reference secondary sources as much as you think is appropriate.

Individual papers will be due on May 2 at noon. They should be approximately 2,000 words in length, and should address the question: did Empedocles conceive of his "scientific" work as being different in type from his "religious" work? A draft of the paper will be due on April 4.

Note that for all assignments, Carl's rule applies. This rule states: *if Carl can't read it, it's wrong*.

Regular **class attendance** is expected. I will pass a signup sheet around every day. If you do not **sign** it, you will be counted as absent. ("Sign" means you must write your name in longhand. It should be legible, and you should use the same style of signature every class.) Students missing more than 2 classes can earn a grade no higher than B+. Students missing more than 5 classes can earn a grade no higher than C.

Academic Integrity

All students should be familiar with and abide by the University's Code of Academic Integrity. This is found in the student handbook *The Cat's Tail* and also online at http://www.uvm.edu/~uvmppg/ppg/student/acadintegrity.html.

As regards this course, please note the following: on the **exams**, all work should be your own, and should represent your own knowledge of the subject. This means that you should not talk to another student during the exam; and you cannot use notes or other assistance during the exam. For **group assignments** you should, of course, collaborate with others in your group.

Individual Circumstances

Students who wish to observe **religious holidays** on regularly scheduled class days must inform me during the first two weeks of the semester of your intent to observe the holiday even when the exact date of the holiday will not be known until later so that alternative arrangements convenient to both you and me can be made at the earliest opportunity.

Accomodations may be provided to eligible students with disabilities; please obtain an accomodation letter from ACCESS, and see me during the first two weeks of the semester to discuss what accomodations will be necessary. ACCESS contact information: 6-7753 or access@uvm.edu, A170 Living/Learning Center.

Members of UVM varsity and junior varsity **teams** are responsible for listing for me, in writing and by the end of the second full week of classes, any conflicts between their planned athletic schedule and our class schedule.

Schedule

Jan 17: First class

Ancient Period

Jan 24: Hesiod, *Theogony*
           Presocratics
           Plato, *Timaeus*

Jan 31: Mathematical astronomy, an introduction
           Ptolemy, *Almagest*

Feb 7: Ptolemy, *Tetrabiblos*

Newton the Scientist

Feb 14: Descartes and Newton's *De Gravitatione*

Feb 21: *Principia* I

Feb 28: *Principia* II

March 7: **Midterm**

March 21: Interlude: Polkinghorne

The Other Newton

March 28: Newton and Cambridge Platonists

April 4: Newton's Alchemy
           Drafts of Individual Papers Due

April 11: *Chronology of Ancient Kingdoms* and *Prophecies of Daniel*

Modern Period

April 18: Reception of Newton: 18th and 19th centuries

April 25: Theories of Religion and Science in the 19th century

May 2: Contemporary Debates: Religion and Psychology
           Individual Papers Due

Further details of assignments will be posted on WebCT.